SAMSUNG

PLASMA DISPLAY

Owner's Instructions

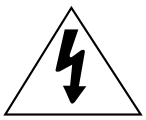
SPK4215M

Warning! Important Safety Instructions

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK).
NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



This symbol indicates high voltage is present inside. It is dangerous to make any kind of contact with any inside part of this product.

This symbol alerts you that important literature concerning operation and maintenance has been included with this product.

Note to CATV system installer: This reminder is provided to call CATV system installer's attention to Article 820-40 of the National Electrical Code (Section 54 of Canadian Electrical Code, Part I), that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building as close to the point of cable entry as practical.

Caution: FCC/CSA regulations state that any unauthorized changes or modifications to this equipment may void the user's authority to operate it.

Caution: To prevent electric shock, match the wide blade of plug to the wide slot, and fully insert the plug.

Attention: pour eviter les chocs electriques, introduire la lame le plus large de la fiche dans la borne correspondante de la prise et pousser jusqu'au fond.

Important: One Federal Court has held that unauthorized recording of copyrighted TV programs is an infringement of U.S. copyright laws.

Certain Canadian programs may also be copyrighted and any unauthorized recording in whole or in part may be in violation of these rights.

TO PREVENT DAMAGE WHICH MAY RESULT IN FIRE OR ELECTRIC SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

FOR COMMERCIAL USE ONLY

If this equipment is used at 240V ac, a suitable plug adapter should be used.

Thank You for Choosing Samsung

Thank you for choosing Samsung! Your new Samsung product represents the latest in television technology. We designed it with easy-to-use on-screen menus and closed captioning capabilities, making it one of the best products in its class. We are proud to offer you a product that will provide convenient, dependable service and enjoyment for years to come.

Important Safety Information

Always be careful when using your Monitor. To reduce the risk of fire, electrical shock, and other injuries, keep these safety precautions in mind when installing, using, and maintaining your machine.

- Read all safety and operating instructions before operating your Monitor.
- Keep the safety and operating instructions for future reference.
- Heed all warnings on the Monitor and in the operating instructions.
- Follow all operating and use instructions.
- Unplug the Monitor from the wall outlet before cleaning. Use a damp cloth; do not use liquid or aerosol cleaners.
- Never add any attachments and/or equipment without approval of the manufacturer. Such additions can increase the risk of fire, electric shock, or other personal injury.
- Do not use the Monitor where contact with or immersion in water is a possibility, such as near bath tubs, sinks, washing machines, swimming pools, etc.
- Do not place the Monitor on an unstable cart, stand, tripod, bracket, table, or floor where it can fall. A falling Monitor can cause serious injury to a child or adult, and serious damage to the appliance. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer or sold with the Monitor. Follow the manufacturer's instructions when mounting the unit, and use a mounting accessory recommended by the manufacturer. Move the Monitor and cart with care. Quick stops, excessive force, and uneven surfaces can make the unit and cart unsteady and likely to overturn.

- Provide ventilation for the Monitor. The unit is designed with slots in the cabinet for ventilation to protect it from overheating. Do not block these openings with any object, and do not place the Monitor on a bed, sofa, rug, or other similar surface. Do not place it near a radiator or heat register. If you place the Monitor on a rack or bookcase, ensure that there is adequate ventilation and that you've followed the manufacturer's instructions for mounting.
- Operate your Monitor only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your appliance dealer or local power company.
- Use only a grounded or polarized outlet. For your safety, this Monitor is equipped with a polarized alternating current line plug having one blade wider than the other. This plug will fit into the power outlet only one way. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug still does not fit, contact your electrician to replace your outlet.

- Protect the power cord. Power supply cords should be routed so that they won't be walked on or pinched by objects placed on or against them. Pay particular attention to cords at plugs, convenience receptacles, and the point where they exit from the unit.

- Unplug the Monitor from the wall outlet and disconnect the antenna or cable system during a lightning storm or when left unattended and unused for long periods of time. This will prevent damage to the unit due to lightning and power-line surges.

- Avoid overhead power lines. An outside antenna system should not be placed in the vicinity of overhead power lines or other electric light or power circuits or where it can fall into such power lines or circuits. When installing an outside antenna system, be extremely careful to keep from touching the power lines or circuits. Contact with such lines can be fatal.

- Do not overload the wall outlet or extension cords. Overloading can result in fire or electric shock.

- Do not insert anything through the openings in the unit, where they can touch dangerous voltage points or damage parts. Never spill liquid of any kind on the Monitor.

- Ground outdoor antennas. If an outside antenna or cable system is connected to the Monitor, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code, ANSI/NFPA No.70-1984, provides information about proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

- Do not attempt to service the Monitor yourself. Refer all servicing to qualified service personnel. Unplug the unit from the wall outlet and refer servicing to qualified service personnel under the following conditions:
  - when the power-supply cord or plug is damaged
  - if liquid has been spilled on the unit or if objects have fallen into the unit
  - if the Monitor has been exposed to rain or water
  - if the Monitor does not operate normally by following the operating instructions
  - if the Monitor has been dropped or the cabinet has been damaged
  - when the Monitor exhibits a distinct change in performance

- If you make adjustments yourself, adjust only those controls that are covered by the operating instructions. Adjusting other controls may result in damage and will often require extensive work by a qualified technician to restore the Monitor to normal.

- When replacement parts are required, be sure the service technician uses replacement parts specified by the manufacturer or those that have the same characteristics as the original part. Unauthorized substitutions may result in additional damage to the unit.

- Upon completion of any service or repairs to this Monitor, ask the service technician to perform safety checks to determine that the Monitor is in a safe operating condition.

FCC Information

User Instructions

The Federal Communications Commission Radio Frequency Interference Statement includes the following warning:
NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

User Information

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. If necessary, consult your dealer or an experienced radio/television technician for additional suggestions. You may find the booklet called How to Identify and Resolve Radio/TV Interference Problems helpful. This booklet was prepared by the Federal Communications Commission. It is available from the U.S. Government Printing Office, Washington, DC 20402, Stock Number 004-000-00345-4 .

Warning

User must use shielded signal interface cables to maintain FCC compliance for the product. Declaration of conformity for products marked with FCC Logo. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

The party responsible for product compliance:
SAMSUNG ELECTRONICS CO., LTD
America QA Lab of Samsung
85 West Tasman Drive
San Jose, CA 95134 USA
Tel) 408-544-5124
Fax) 408-544-5191
Provided with this monitor is a detachable power supply cord with IEC320 style terminations.
It may be suitable for connection to any UL Listed personal computer with similar configuration.
Before making the connection, make sure the voltage rating of the computer convenience outlet is the same as the monitor and that the ampere rating of the computer convenience outlet is equal to or exceeds the monitor voltage rating.
For 110 Volt applications, use only UL Listed detachable power cord with NEMA configuration 5-15P type (parallel blades) plug cap. For 230 Volt applications use only UL Listed Detachable power supply cord with NEMA configuration 6015P type (tandem blades) plug cap.

IC Compliance Notice
This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations of ICES-003.

Notice de Conformité IC
Cet appareil numérique de classe A respecte toutes les exigences du Règlement ICES-003 sur les équipements produisant des interférences au Canada.

European Notice
Products with the CE Marking comply with both the EMC Directive (89/336/EEC), (92/31/EEC), (93/68/EEC) and the Low Voltage Directive (73/23/EEC) issued by the Commission of the European Community. Compliance with these directives implies conformity to the following European Norms:

- EN55022 : 1998 Class A
- EN55024 : 1998
- EN61000-3-2 : 1995
- EN61000-3-3 : 1995

User Instructions

Screen Image retention

Do not display a still image (such as on a video game or when hooking up a PC to this Monitor) on the plasma monitor panel for more than 2 hours as it can cause screen image retention. This image retention is also known as "screen burn". To avoid such image retention, refer to page 26 and 42 of this manual to reduce the degree of brightness and contrast of this screen when displaying a still image.

Warranty

Warranty Period: One year starting from the purchase of your Monitor.
Warranty does not cover any damage caused by image retention.

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SAMSUNG

PLASMA DISPLAY PANEL

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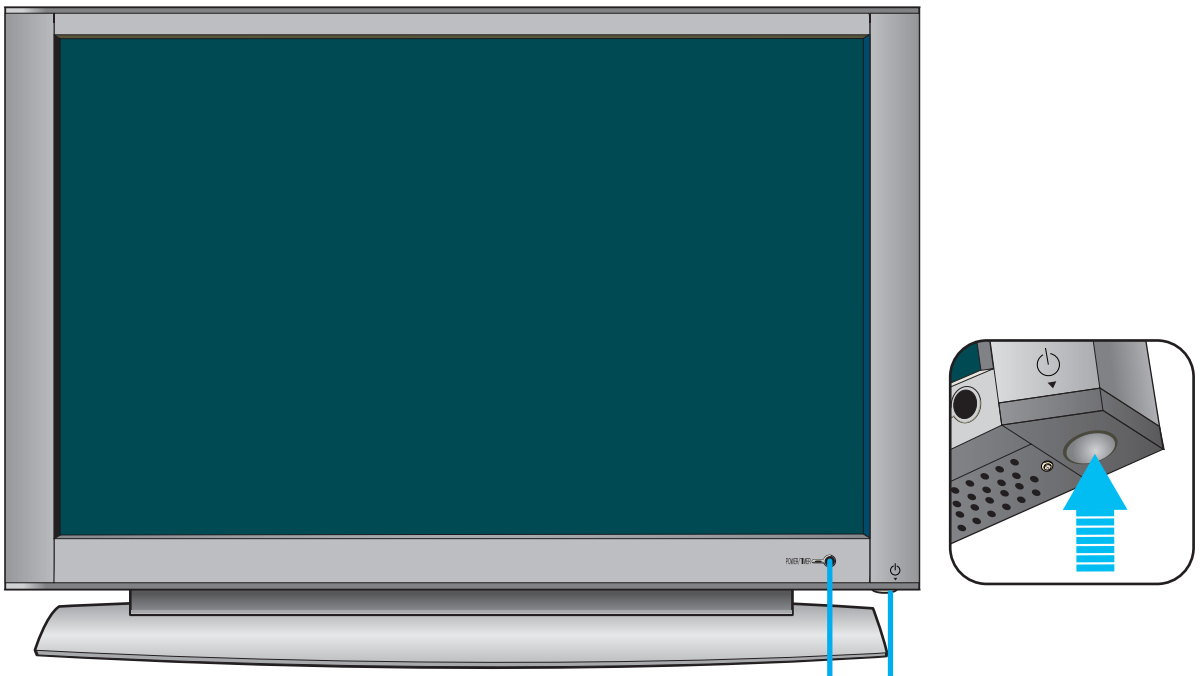
Your New Plasma Display Panel

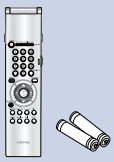
Front Panel



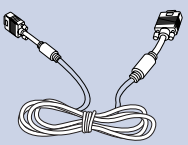
Remote Control Signal Receiver
Aim the remote control towards this spot on the Monitor.

Power Button
Press to turn the PDP on and off.

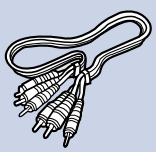
Checking Parts



Remote Control/
AAA Batteries

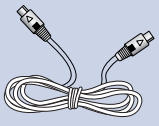


Video Cable
(15Pin)

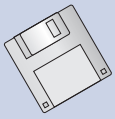


Video Cable

Power Cord



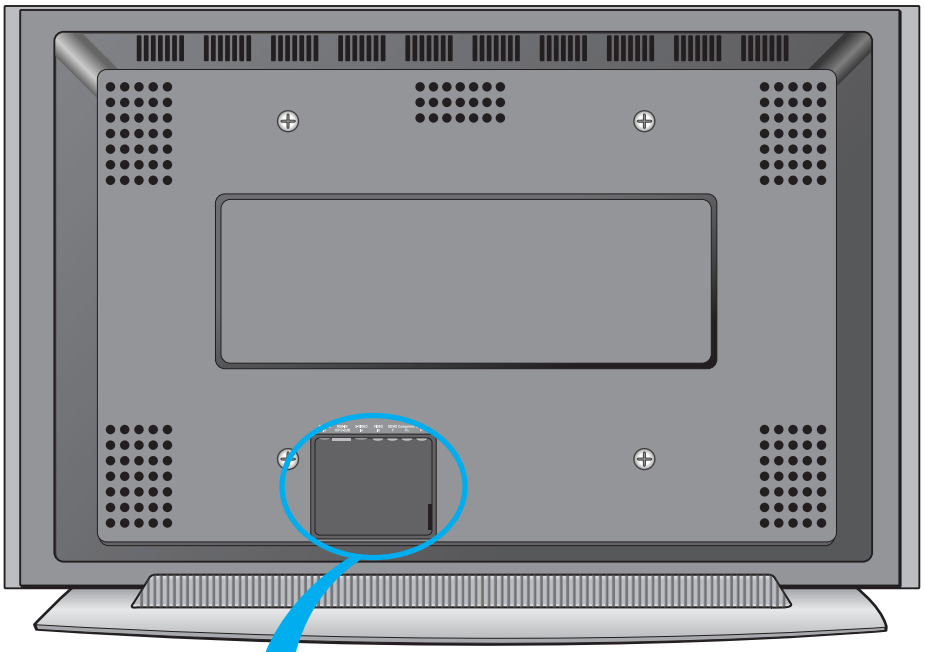
S-VHS Cable

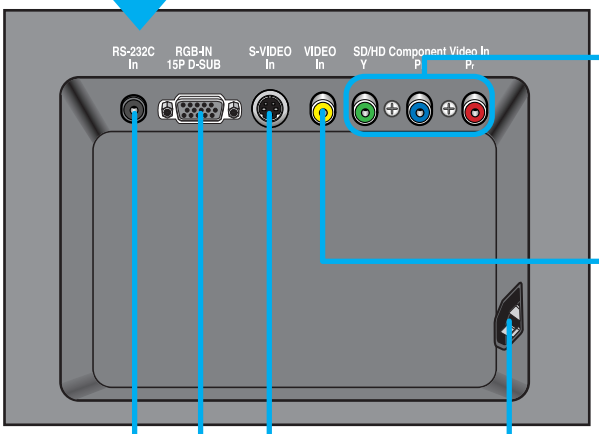


Diskette
(Plug & Play RS-232C)

Owner's
Instruction

Rear Panel





Component Input (Y, Pb, Pr) jacks
Connect a video signal from a DVD player or DTV receiver.

Composite Input jack
Connect a video signal from external sources like VCRs or DVD players.

Power Input jack

RS-232C Input jack

S-video Input jack
Connect a S-Video signal from an S-VHS VCRs or DVD players.

RGB Input jack (15pin)
Connect to the video output jack on your PC.

Remote Control Buttons

Remote Control

Flip the cover open in the arrow direction.

❶ Power button
Turns the PDP on and off.

❷ Number buttons

❸ Display button
Press to display information on the PDP screen.

❹ Menu button
Displays the main on-screen menu.

❺ CH (Channel) and VOL (Volume) buttons
Not available for this Monitor.

❻ Mute button
Not available for this Monitor.

❼ P.Mode button
Adjust the PDP picture by selecting on of the preset factory settings (or select your personal, customized picture settings.)

❽ Aspect button (Not available in PC Mode)
Press to change the screen size.

❾ Mode button
Selects a target device to be controlled by the samsung remote control (ie., VCR, Cable, or DVD players).

❿ Clock Display button
Press to display clock on the PDP screen.

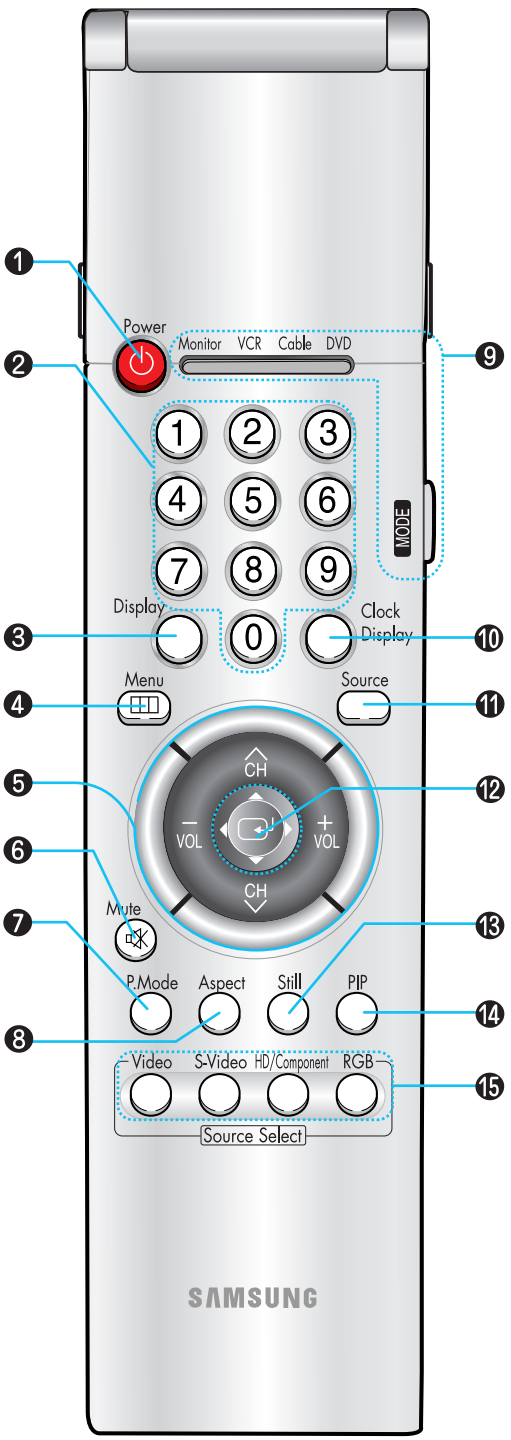
⓫ Source button
Press to display all of the available video sources (ie., Video, S-Video, Component, HD Component, PC).

⓬ Joystick button
Use to highlight on-screen menu items and change menu values.

⓭ Still button
Press to pause the current screen.

⓮ PIP button
Activates picture in picture.

⓯ Source selection buttons
Press to directly select to Video, S-Video, Component, HD Component, PC(R.G.B).



⑯ VCR control buttons
Controls VCR tape functions: Stop, Rewind, Play/Pause, Fast Forward.

⑰ Set button
Use during set up of this remote control, so that it will work compatibly with other devices (VCR, cable box, DVD, etc.)

⑱ Clock set button
Press to clock setting.

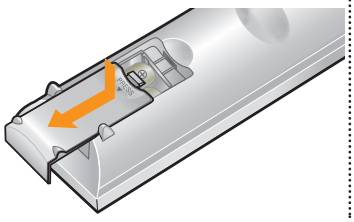
⑲ PIP control buttons
Source : Press to select one of the available signal sources for the PIP window.
Swap : Exchanges the video signal that is currently displayed on the main screen with the signal in the PIP window.
Size : Press to make the PIP window larger or smaller.
Locate : Press to move the PIP window to any of the four corners of the screen.

⑳ PC control buttons
Auto Adjust
Scaling
Zoom

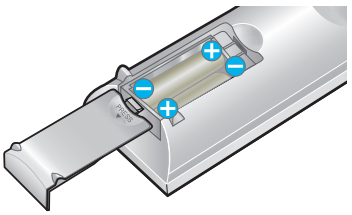
㉑ Sleep button
Press to select a preset time interval for automatic shutoff.

Installing the Batteries in Your Remote Control

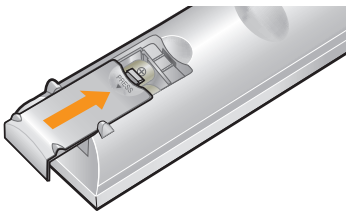
1 Slide the back cover to open the battery compartment of the remote control



2 Install two AAA size batteries. Make sure to match the "+" and "-" ends of the batteries with the diagram inside the compartment.



3 Slide the cover back into place.



Remote Control Operation Range.
You can use your remote control within a distance of 7~10m and an angle of 30 degrees from the left and right sides of the remote control receptor of the monitor.

Wall Installation Instructions

Installation Notes

1. Do not install the PDP on any place other than vertical walls.

2. To protect the performance of the PDP and prevent troubles, avoid the following places:
   - Next to spring cooler detectors.
   - Places subject to vibration or shock.
   - Near high voltage cables.
   - Around heating apparatus

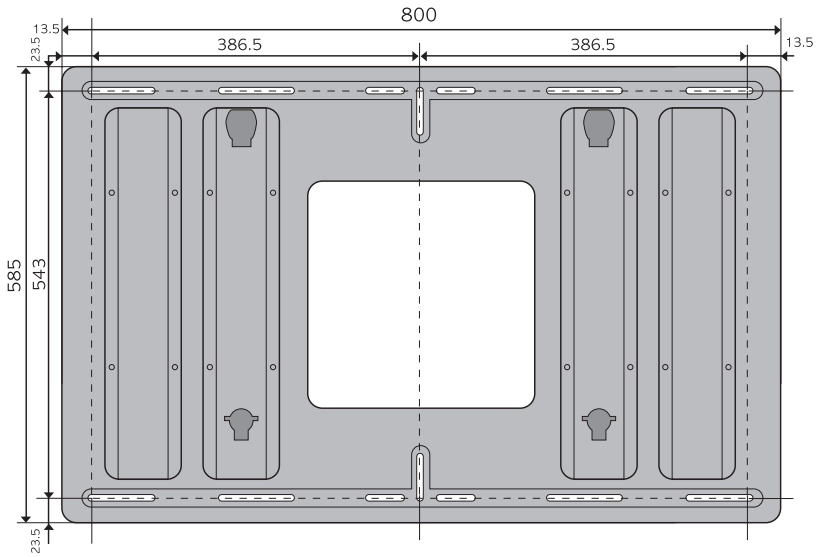
3. Install the PDP considering the materials of the place where the PDP is located.

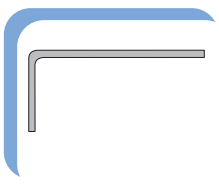
4. Use only recommended parts and components for installation.

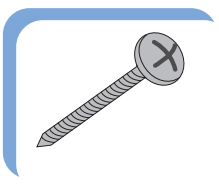
5. Do not install in the wall.

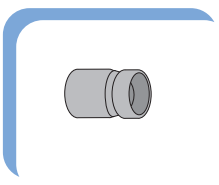
Parts (Wall attachment panel is sold separately. Check with your dealer)

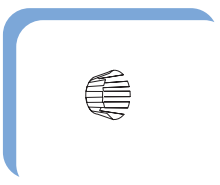
Wall attachment panel

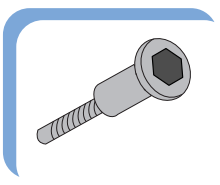



Tightening wrench


Fixing bolt


Insulation rubber

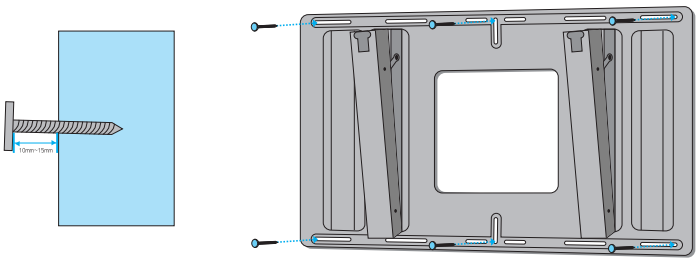

Dish-type washer


Hexagonal bolt

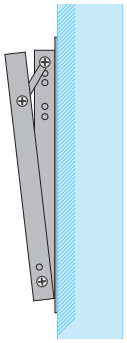
Installing the Display on the Wall Attachment Panel:

1 See the drawing of the wall attachment panel shown in page 14 to check for the stability of the wall where the PDP is to be installed. If the wall is not enough strong to support the PDP, strengthen the wall before installation.

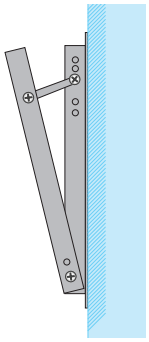
2 Fix the wall attachment panel on the wall using bolts as shown in the following figure: Fixing bolts must protrude from the wall appox. 0.6 inches.



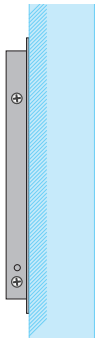
3 Using the wall attachment panel, you may adjust the angle of the display from 0 to 20 degrees. The angle can be set in 5 stages with 5 degrees of distance each using the angle control holes on the sides of the panel.



When the angle has been set to 5 degrees.

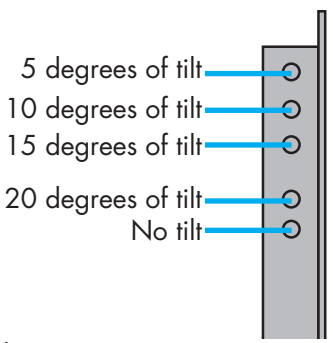


When the angle has been set to 15 degrees.



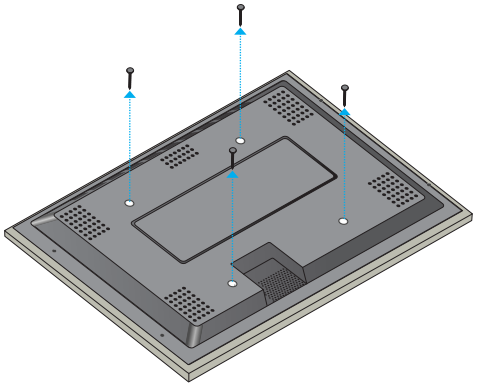
When the panel hasn't been tilted.

Angle control holes



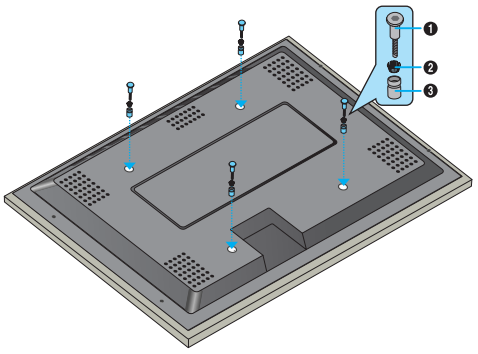
Continued...

4 Remove four large screws from the rear side of the display.

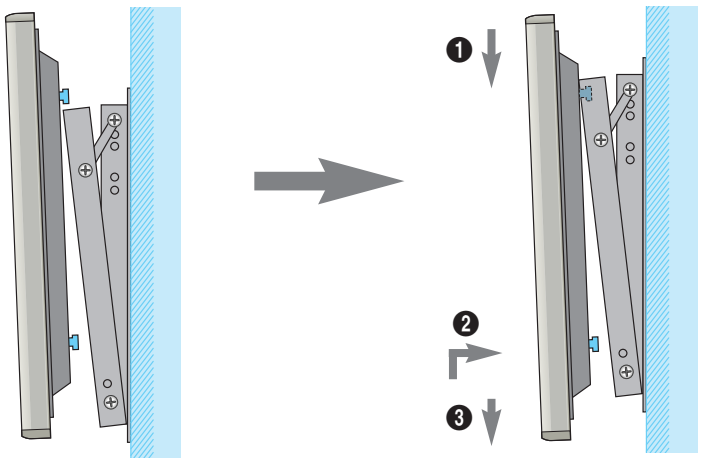


5 Insert the hexagonal bolts, dish-type washers, and insulation rubber into the four screwholes as shown in the following figure:

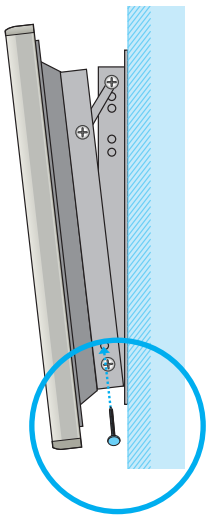
❶ Hexagonal bolt
❷ Dish-type washer
❸ Insulation rubber



6 Put the insulation rubber point protruding from the rear top of the display in the groove on the top of the wall attachment panel. Lift up the display a little bit so that the insulation rubber point at the bottom of the rear side of the display is put to the groove at the bottom of the wall attachment panel.
(Do not lift the display with any pressure. The insulation rubber at the top may be taken off.)



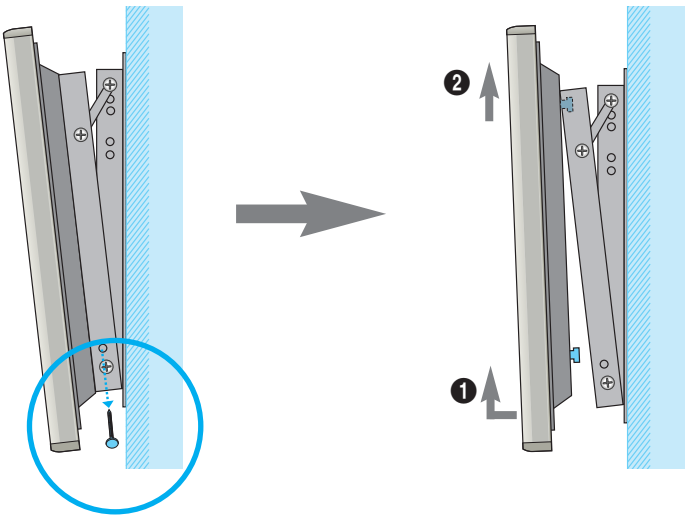
7 Insert the fixing bolts into the boltholes on both sides (left and right) of the wall fixing panel. Keep the fixing bolts tight to prevent the display from separating from the panel, and falling to the floor.



Separating the Display from the Wall Attachment Panel:

Remove the fixing bolts from both sides (left and right) of the wall attachment panel. Lift and pull the bottom of the display a small amount, to separate the insulation rubber point from the bottom of the wall attachment panel.

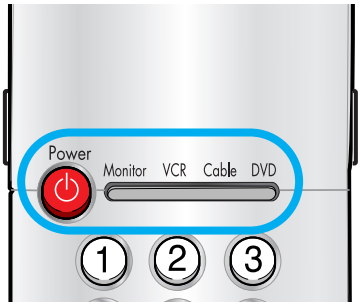
Lift the display and separate the insulation rubber point from the groove on top of the wall attachment panel.



Turning the Monitor(PDP) On and Off

Turning the Monitor(PDP) On and Off

Press the Power button on the remote control.
The PDP will turn on and you will be ready to use it's features.
You can also use the Power button on the front of the PDP.



Notes:

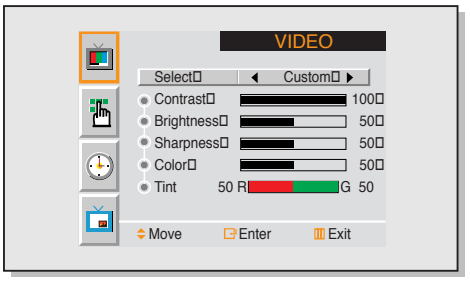
- If your Monitor isn't turned on when the power button is pressed: Press the MODE button to check if the Monitor mode has been chosen ( ).

Viewing the Menus and Displays

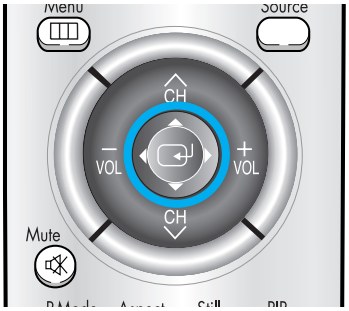
Your PDP has a simple, easy-to-use menu system that appears on the PDP screen. This system makes it convenient and fast to use features on the PDP. Your PDP also lets you display the status of many of your PDP's features.

Viewing the Menus

1 With the power on, press the Menu button on the remote control. The main menu appears on the screen. The Video menu is selected.

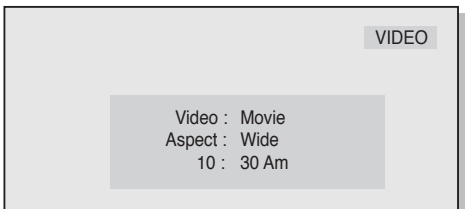


2 Use the joystick (up, down) button to the move items in the menu. Use the joystick (left, right) button to display, change, or use the selected items.
Use the joystick (⏎) button to enter items in the menu. On screen menus disappear from the screen automatically after about thirty seconds, or you can press the Menu button on your remote control to exit the menu.

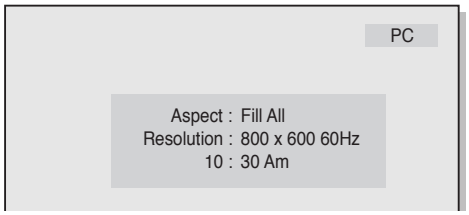


Displaying Status Information

Press the Display button on the remote control. The PDP will display the Screen size, Resolution, Current time, and screen mode.



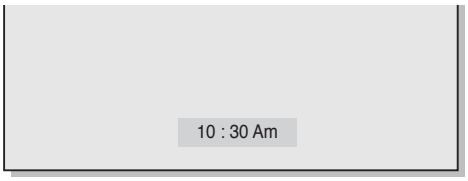
(VIDEO, S-VIDEO or DVD mode)



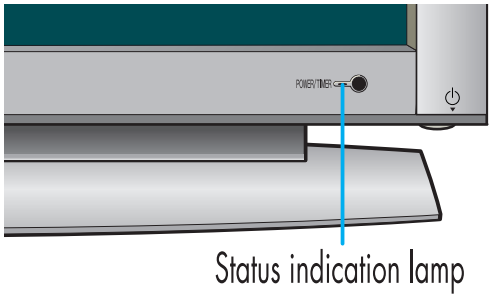
(PC mode)

Displaying Clock

Press the Clock Display button on the remote control.
The Current time will display on the screen.



Indication Lights



Status	Status Lamp
Standby Mode	RED
Power On	GREEN
Timer On	AMBER

SAMSUNG

PLASMA DISPLAY PANEL

Connecting PC and Operation PC

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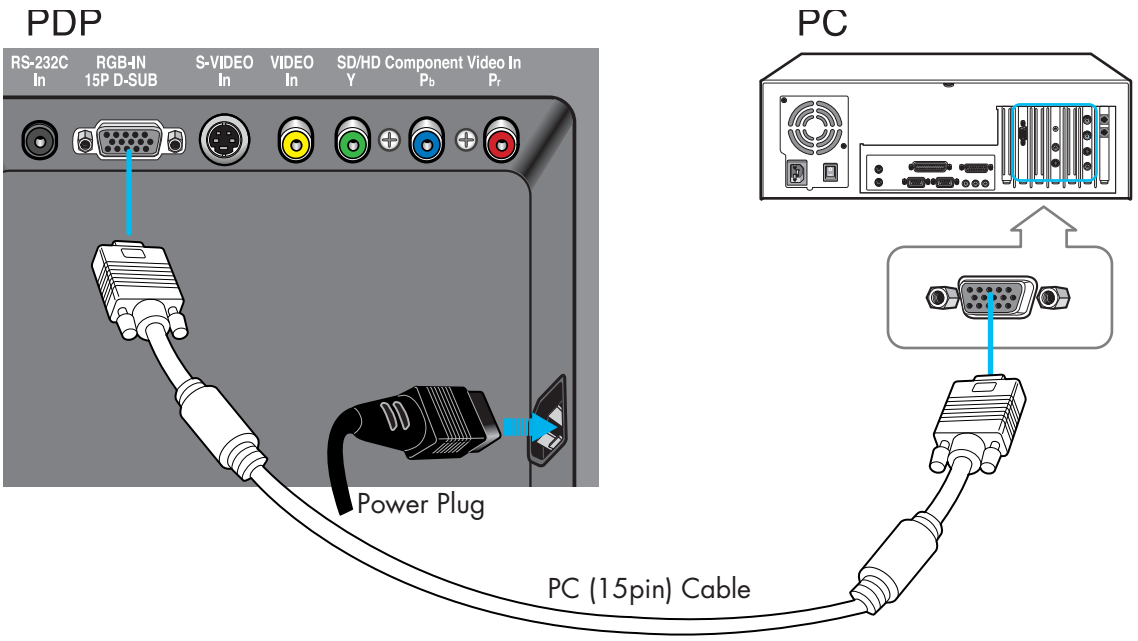
PC Connecting to a PC

This PDP set is not compatible with Macintosh PC.



Connecting a PC to the PDP

Connect a PC (15pin) cable between the Video Output jack on the PC and the RGB in (15p D-SUB) on the PDP.

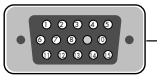
• For an explanation of Component video, see your PC owner's instruction.

To watch the PC screen:

1. Turn on PDP and press the RGB button to select the PC mode.
2. Turn on PC and check for PC system requirements.
   (Refer to pages 24 and 25 for PC system requirements.)
3. Adjust the PC screen. (Refer to pages 26.)

Pin Configuration

• 15Pin Signal Cable (based on protruded pin)



Pin No.	PC IN	PC OUT
1	Red (R)	Red (R)
2	Green (G)	Green (G)
3	Blue (B)	Blue (B)
4	Grounding	Grounding
5	Grounding (DDC)	Grounding (DDC)
6	Red (R) Grounding	Red (R) Grounding
7	Green (G) Grounding	Green (G) Grounding
8	Blue (B) Grounding	Blue (B) Grounding
9	Reserved	Reserved
10	Sync Grounding	Sync Grounding
11	Grounding	Grounding
12	Data (DDC)	Data (DDC)
13	Horizontal sync.	Horizontal sync.
14	Vertical sync.	Vertical sync.
15	Clock (DDC)	Clock (DDC)

Setting up Your Monitor Plug and Play

Our adoption of the new VESA® Plug and Play solution eliminates complicated and time consuming setup. It allows you to install your monitor in a Plug and Play compatible system without the usual hassles and confusion. Your PC system can easily identify and configure itself for use with your display. This monitor automatically tells the PC system its Extended Display Identification (EDID) data using Display Data Channel (DDC) protocols so the PC system can automatically configure itself to use the flat panel display. If your PC system needs a video driver, following the instructions given below according to the operating system your computer uses.

Installing the Video Driver

When prompted by the operating system for the monitor driver, insert the Driver diskette included with this monitor. Driver installation is slightly different from one operating system to another. Follow the directions as appropriate for the operating system you have.

Windows® 98, Windows® Me and Windows® 2000

1. Windows_ 98, Windows_ Me and Windows_ 2000 will auto-detect your new monitor and start the "Add New Hardware Wizard" if the drivers are not already installed. Click the NEXT button to search for drivers.
2. Check the diskette drive box to install the drivers off the diskette provided with your monitor and click NEXT.
3. Confirm that Windows found the driver on the diskette and click NEXT again to install the driver.

To manually install or update the driver, follow the directions below:

1. Click on START, SETTINGS, CONTROL PANEL, DISPLAY SETTINGS tab, ADVANCED, MONITOR tab, CHANGE, This will start the "Add New Hardware Wizard".
2. Follow the same directions as given in the steps in the section above.

Version 4.00.950A

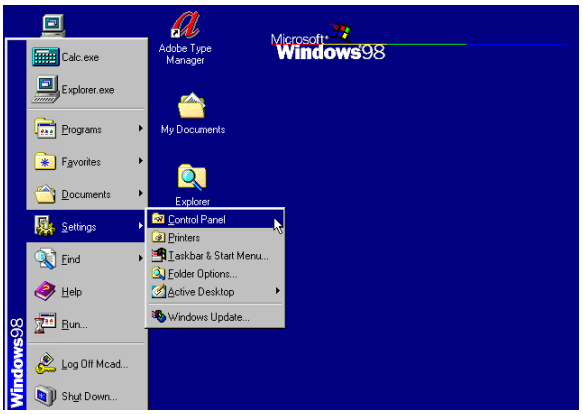
1. Click on START, SETTINGS, CONTROL PANEL, DISPLAY SETTINGS tab, CHANGE DISPLAY TYPE, CHANGE, HAVE DISK.
2. Type the diskette drive letter in the box and click OK.

Version 4.00.950B

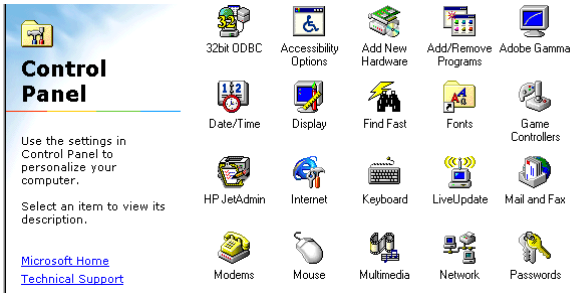
1. Click on START, SETTINGS, CONTROL PANEL, DISPLAY, ADVANCED PROPERTIES, MONITOR tab, HAVE DISK.
2. Type the diskette letter in the box and click OK

How to Set up Your PC Software (Windows only)

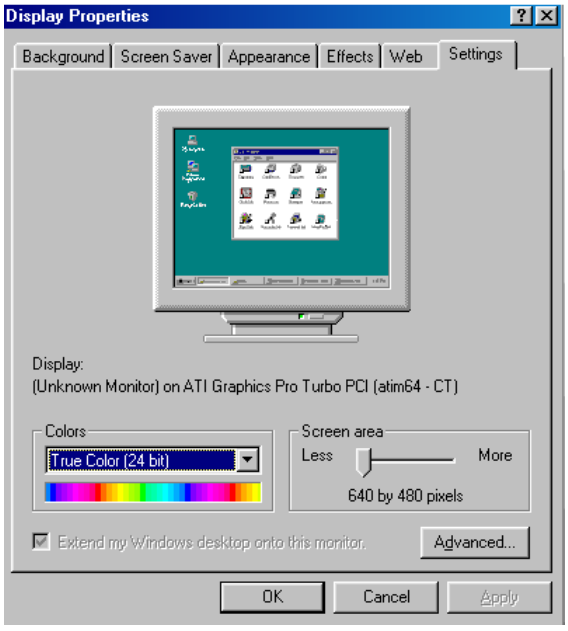
The Windows display-settings for a typical computer are shown below. But the actual screens on your PC will probably be different, depending upon your particular version of Windows and your particular video card. But even if your actual screens look different, the same, basic set-up information will apply in almost all cases. (If not, contact your computer manufacturer or Samsung Dealer.



On the windows screen, select in the following sequence : Start → Settings → Control Panel.



When the control panel screen appears, click on "Display" and a display dialog-box will appear.



Select the "Settings" tab in the display dialog-box.

The two key variables that apply the PDP-PC interface are "resolution" and "colors." The correct settings for these two variables are:

- Size (sometimes called "resolution"): 640 x 480 pixels.
- Color: "24-bit" color (might also be expressed as "16 million colors")Shown at left is a typical screen for "Display" dialog box.

If a vertical-frequency option exists on your display settings dialog box, the correct value is "60" or "60 Hz." Otherwise, just click "OK" and exit the dialog box.

Continued...

Notes:
Both screen position and size will vary, depending on the type of PC monitor and its resolution. The table below shows all of the display modes that are supported:

Video signal	Dot X Line	Vertical Frequency (Hz)	Horizontal Frequency (KHz)	Vertical polarity	Horizontal polarity
IBM PC / AT Compatibler	640 X 350	70.086	31.469	N	P
		85.080	37.861	N	P
	640 X 400	85.080	37.861	P	N
	720 X 400	70.087	31.469	P	N
		85.039	37.927	P	N
	640 X 480	59.940	31.469	N	N
		72.809	37.861	N	N
		75.000	37.500	N	N
		85.008	43.269	N	N
	800 X 600	56.250	35.156	N/P	N/P
		60.317	37.879	P	P
		72.188	48.077	P	P
		75.000	46.875	P	P
		85.061	53.674	P	P
	1024 X 768	60.004	48.363	N	N
		70.069	56.476	N	N
		75.029	60.023	P	P
		84.997	68.677	P	P

- The interlace mode is not supported.
- The PDP operates abnormally if a non-standard video format is selected.

Notes:
- When this PDP is used as a PC display, 24-bit color is supported (over 16 million colors).
- Your PC display screen might appear different.
  Depending on the manufacturer (and depending on your particular version of Windows).
  Check your PC instruction book for information about connecting your PC to a PDP.
- If a vertical and horizontal frequency-select mode exists, select 60Hz (vertical) and 31.5kHZ (horizontal).
- In some cases, abnormal signals (such as stripes) might appear on the screen when the PC power is turned off (or if the PC is disconnected). If so, press the Source button to enter the VIDEO mode.
  Also, make sure that the PC is connected.
- Connect only a PC monitor to the monitor output port while viewing the PC screen. (Otherwise, random signals might appear).

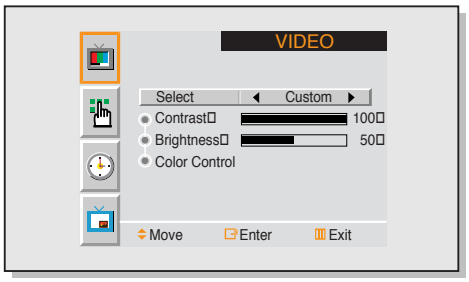
PC Adjusting the PC Screen

Adjusting the R.G.B

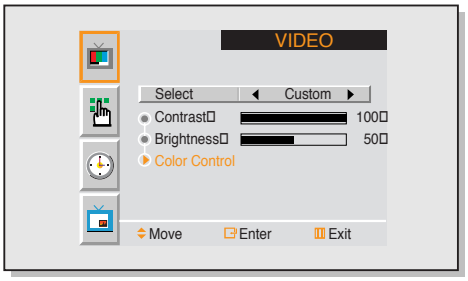
Preset:

- Press the RGB button to select the PC mode.

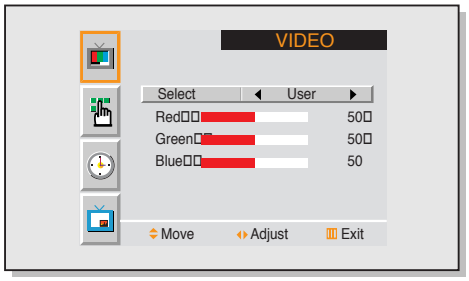
1 Press the Menu button, then press the joystick to enter.



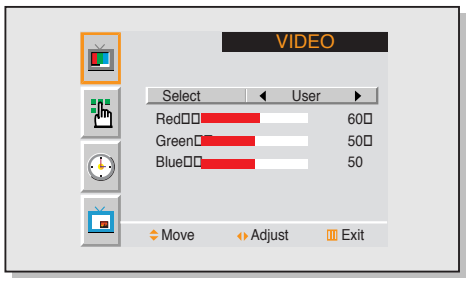
2 Move the joystick down to select the “Color Control”, then press the joystick to enter.



3 You can select "User" or "Normal" by moving the joystick left or right. Select "User" to adjust the value of R.G.B.
Move the joystick up or down to select the item you want to change.



4 Move the joystick right or left to change the value of the item, using the on-screen gauge as your guide.



5 Press the Menu button to exit.

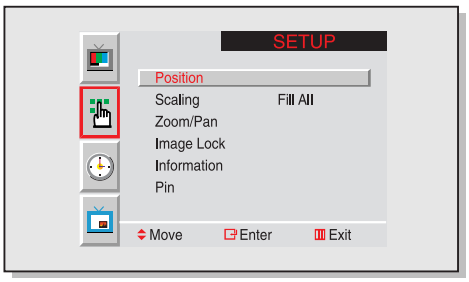
PC Changing the Position of the Image

After connecting the PDP to your PC, adjust the position of screen if it is not well-aligned.

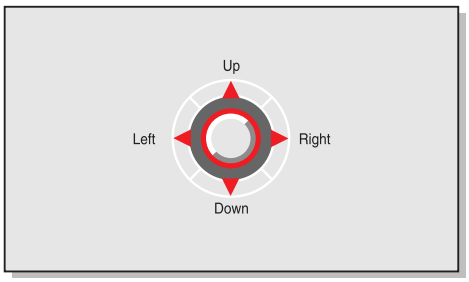
Preset:

- Press the RGB button to select the PC mode.

1 Press the Menu button. Move the joystick up or down to select the SETUP, then press the joystick to enter.



2 Press the joystick to enter, then adjust the position of screen by using the joystick button.



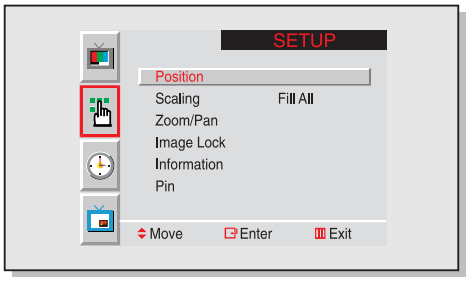
3 Press the Menu button to exit.

PC Changing the Size of the Image

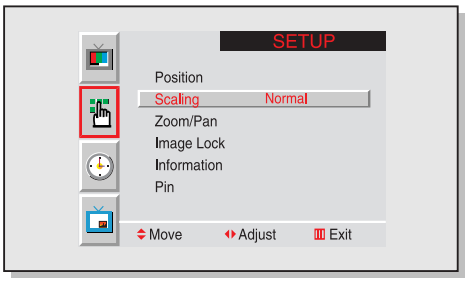
Preset:

- Press the RGB button to select the PC mode.

1 Press the Menu button. Move the joystick up or down to select the SETUP, then press the joystick to enter.



2 Move the joystick up or down to select the "Scaling", then move the joystick left or right to select the "Fill All" or "Normal"(1:1).



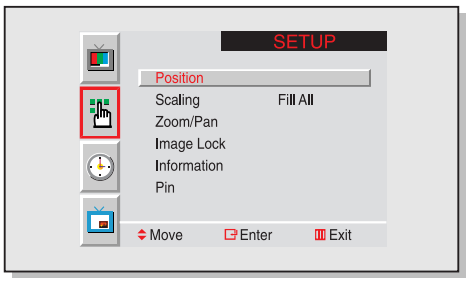
3 Press the Menu button to exit.

PC Enlarge of the Image (Zoom)

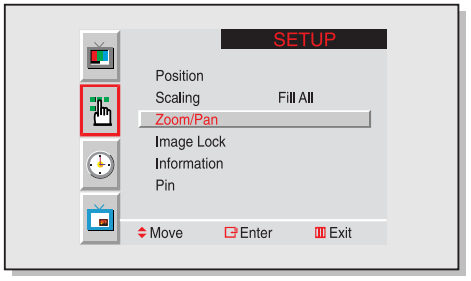
Preset:

- Press the RGB button to select the PC mode.

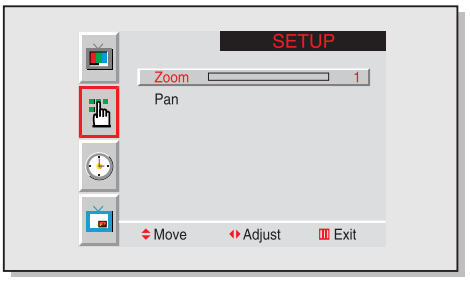
1 Press the Menu button. Move the joystick up or down to select the SETUP, then press the joystick to enter.

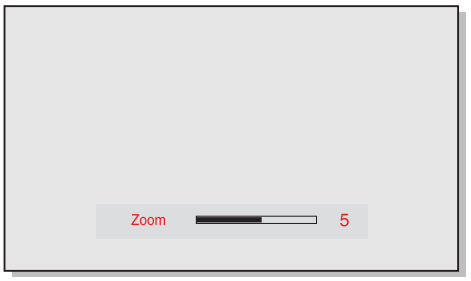


2 Move the joystick up or down to select the "Zoom/Pan", then press the joystick to enter.



3 Move the joystick left or right to enlarge the image.
- The picture can be expanded 2 to 10 in Zoom mode.





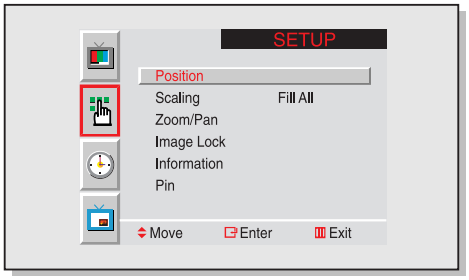
4 Press the Menu button to exit.

PC Move Expanded Picture

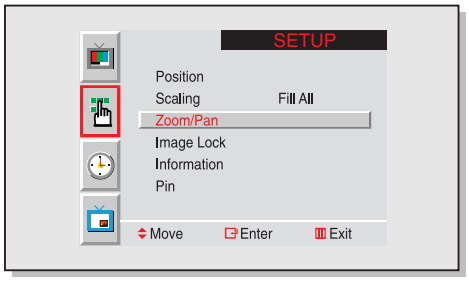
Preset:

- Press the RGB button to select the PC mode.

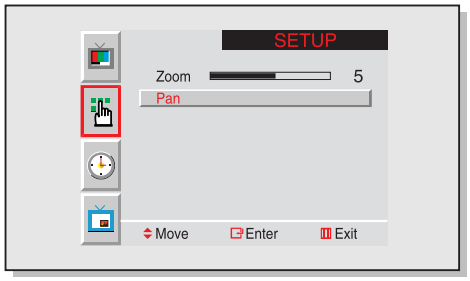
1 Press the Menu button. Move the joystick up or down to select the SETUP, then press the joystick to enter.

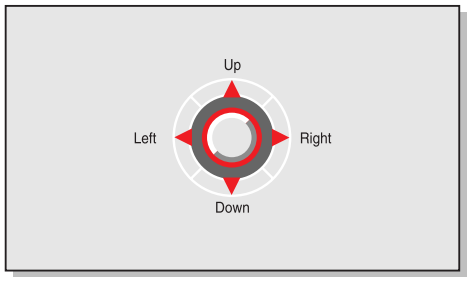


2 Move the joystick up or down to select the "Zoom/Pan", then press the joystick to enter.



3 Press the joystick to enter, then adjust the position of screen by using the joystick button.
- The PAN feature operates only when the picture is expanded.





4 Press the Menu button to exit.

PC Picture Quality Adjustment

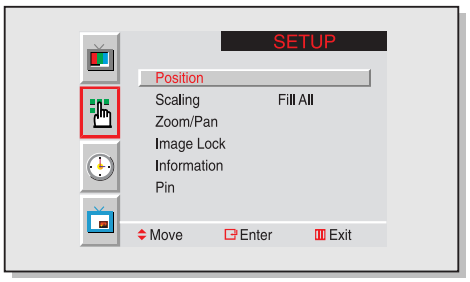
Picture Automatic Adjustment On/Off

Preset:

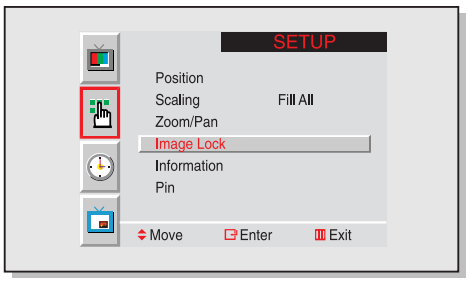
- Press the RGB button to select the PC mode.

1 Press the Menu button. Move the joystick up or down to select the SETUP, then press the joystick to enter.

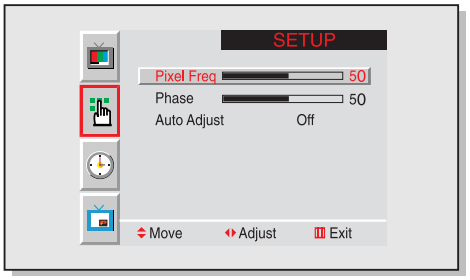
Quick way to access the Auto Adjust: Just press "Auto Adjust." on the remote control.

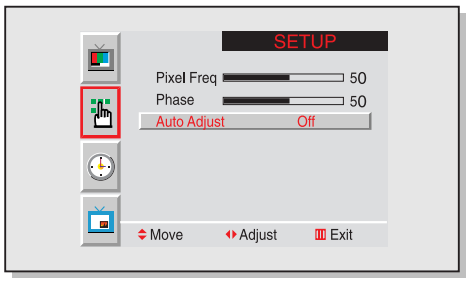


2 Move the joystick up or down to select the "Image Lock", then press the joystick to enter.



3 Move the joystick up or down to select "Auto Adjust", then move the joystick left or right to select the "On".





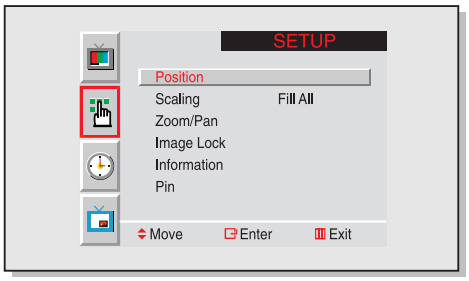
4 Press the Menu button to exit.

Frequency Adjustment

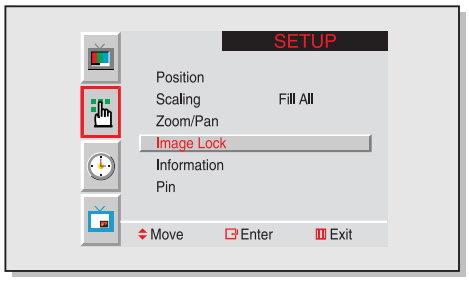
Preset:

- Press the RGB button to select the PC mode.

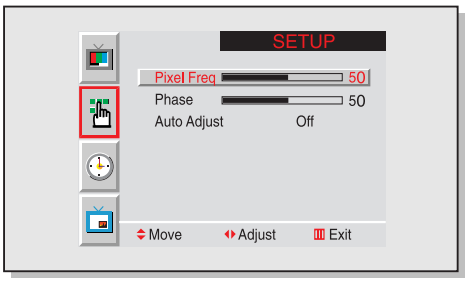
1 Press the Menu button. Move the joystick up or down to select the SETUP, then press the joystick to enter.

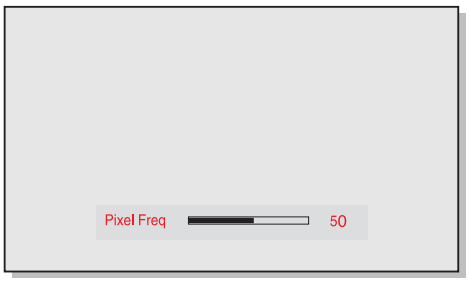


2 Move the joystick up or down to select the "Image Lock", then press the joystick to enter.



3 Remove picture noise (vertical stripes) on the screen by moving the joystick left or right.
(If frequency is not set properly, the vertical stripes will appear on the screen.)





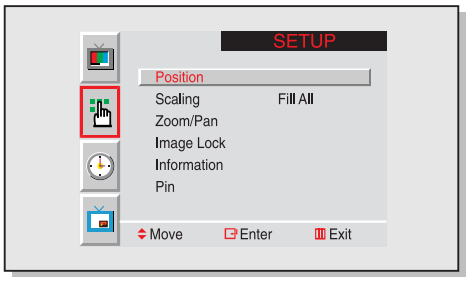
4 Press the Menu button to exit.

Fine Tuning (Phase)

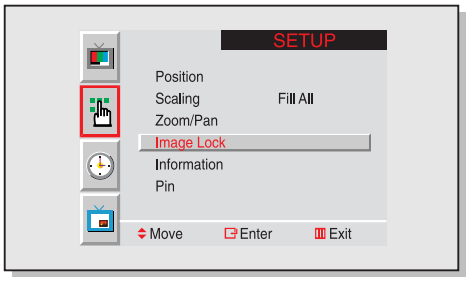
Preset:

- Press the RGB button to select the PC mode.

1 Press the Menu button. Move the joystick up or down to select the SETUP, then press the joystick to enter.

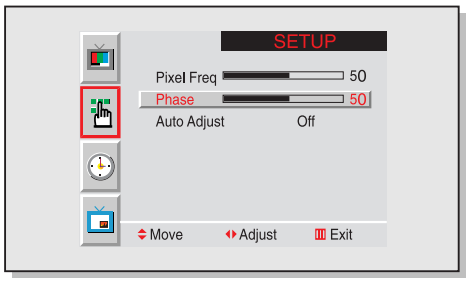


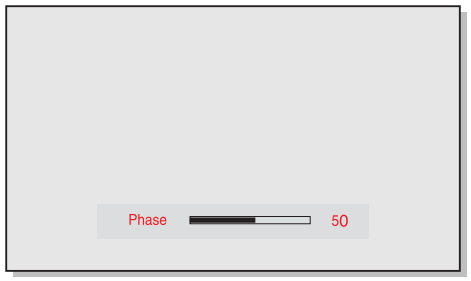
2 Move the joystick up or down to select the “Image Lock”, then press the joystick to enter.



3 Move the joystick up or down to select the “Phase”.

Remove picture noise (vertical stripes) on the screen by moving the joystick left or right.
(If phase is not set properly, the picture may be blurry.)





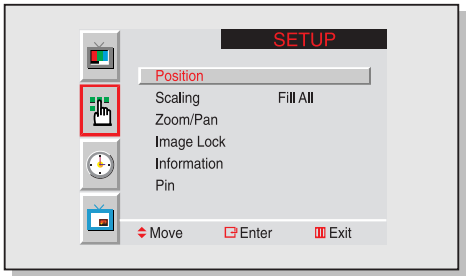
4 Press the Menu button to exit.

PC Information

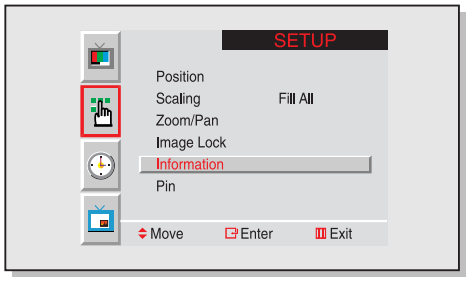
Preset:

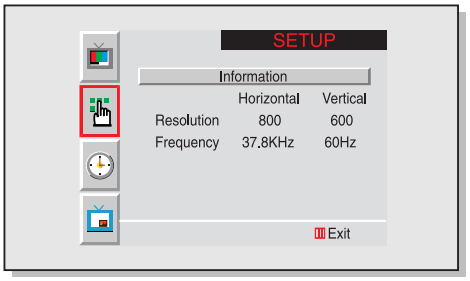
- Press the RGB button to select the PC mode.

1 Press the Menu button. Move the joystick up or down to select the SETUP, then press the joystick to enter.



2 Move the joystick up or down to select the "Information", then press the joystick to enter.





3 Press the Menu button to exit.

PC Power Saver (PC mode only)

This monitor has a built-in power management system called Power Saver. This power management system saves energy by switching your monitor into a low-power mode when it has not been used for a certain amount of time. This power management system operates with a VESA DPMS compliant video card installed in your computer. You use a software utility installed on your computer to set up this feature.
See the table below for details.

Table 1. Power-saving modes

State	Normal Operation	Power-saving Function Mode		
		Standby Mode	Suspend Mode Position A1	Power-off Mode Position A2
Horizontal Sync	Active	Inactive	Active	Inactive
Vertical Sync	Active	Active	Inactive	Inactive
Video	Active	Blanked	Blanked	Blanked
Power Indicator	Green	Amber Blinking (1 sec Interval)	Amber Blinking (1 sec Interval)	Amber Blinking (1 sec Interval)

Notes:

- This monitor automatically returns to normal operation when horizontal and vertical sync return.
- This occurs when move the computer's mouse or press a key on the keyboard.
- For energy conservation, turn your monitor OFF when it is not needed, or when leaving it unattended for long periods.

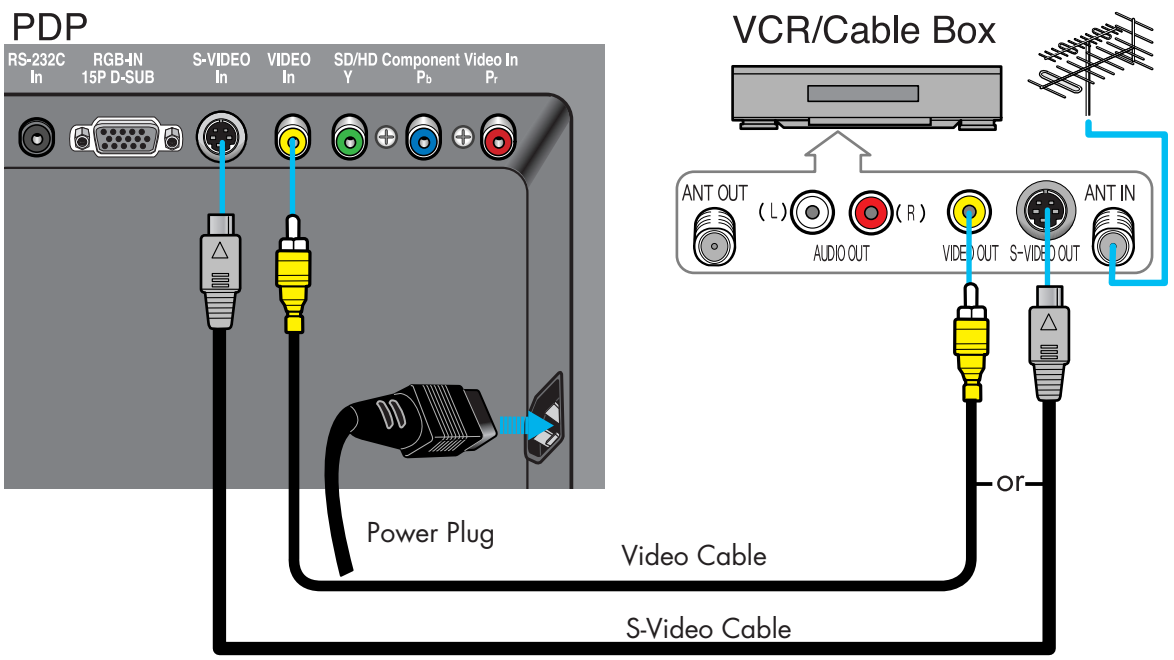
SAMSUNG

PLASMA DISPLAY PANEL

Connection
(Connecting Receiver)

Connecting a VCR/Cable Box 38
Connecting a DVD/Set-Top Box 39

Connecting a VCR/Cable Box



Connecting a Video or S-Video jack

Connect an Video/S-Video cable between the Video/S-Video Output jack on the VCR/Cable box and the Video Input jack on the PDP.

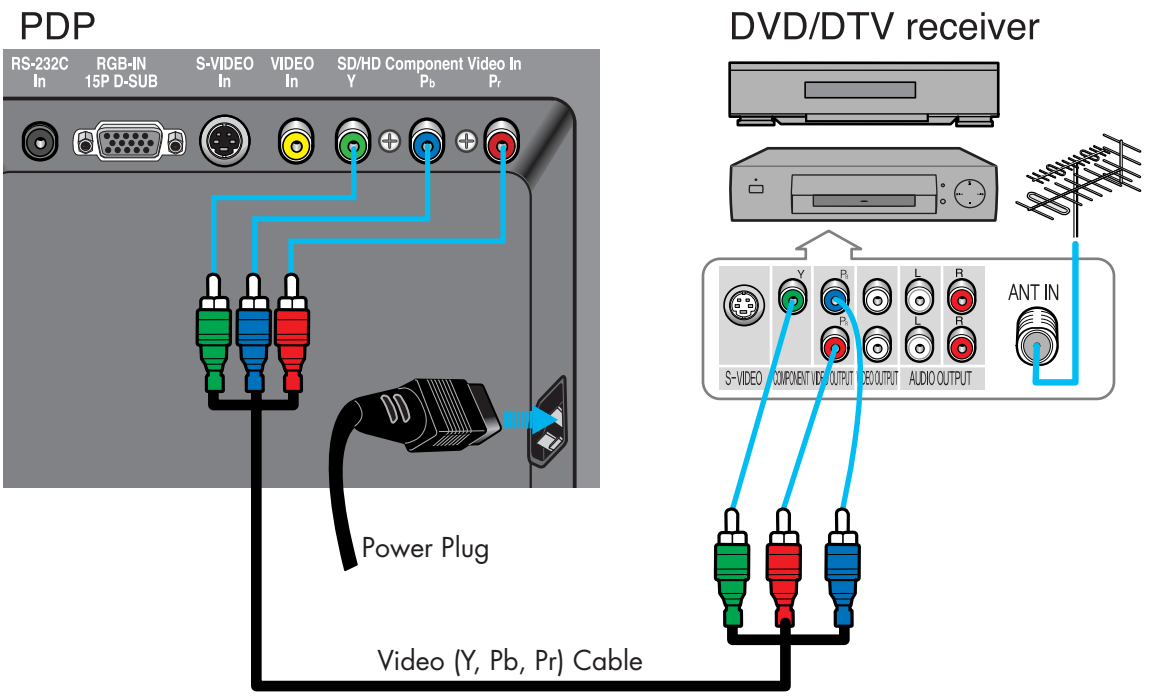
• For better video, you can use a S-Video cable.

Videotape Playback:

1. Turn on PDP and press the Video or S-Video(if S-Video jack is connected.) button on your remote control.
2. Turn on your VCR, insert a videotape and press the Play button.

• For an explanation of Component video, see your VCR/Cable Box owner's instruction.

Connecting a DVD/Set-Top Box



Connecting a Video jacks

Connect a Video cable between the DVD/Set-Top Box (Y,Pb,Pr) Output jacks on the DVD/Set-Top Box and the Video (Y,Pb,Pr) Input jack on the PDP.

To Play DVD:

1. Turn on PDP and press the HD/Component button to select the DVD mode.
2. Turn on your DVD, insert a Video CD and press the Play button.

To Watch DTV:

1. Turn on PDP and press the HD/Component button to select the DTV mode.
2. Turn on your DTV receiver.

• For an explanation of Component video, see your DVD/DTV receiver owner's instruction.

SAMSUNG

PLASMA DISPLAY PANEL

Picture Control

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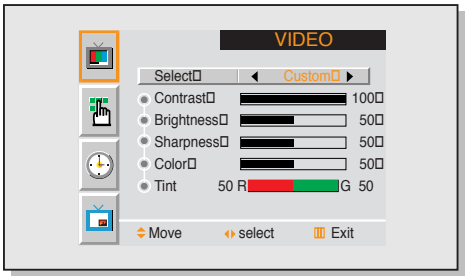
Viewing the Picture-in-Picture 44
Changing the Screen Size 49
Freezing the Picture 50
Auto Pixel Shift 50

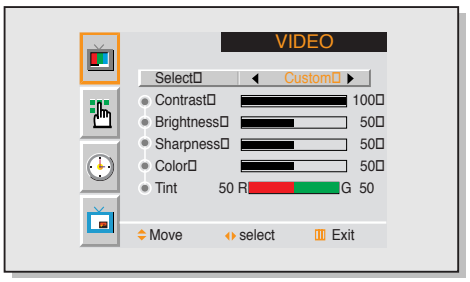
Customizing the Picture

You can use the on-screen menus to change the Brightness, Contrast, Sharpness, Color, and Tint settings of your PDP.

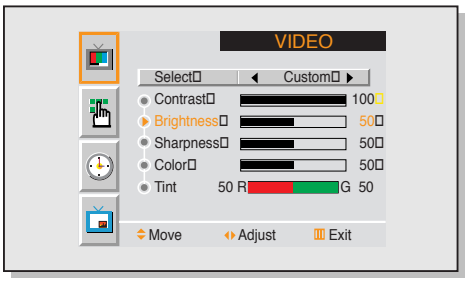
1 Press the Menu button, then press the joystick to enter.



2 Move the joystick left or right to select the "Custom". You will also see the items "Contrast", "Brightness", "Sharpness", "Color", "Tint".



3 Move the joystick up or down to select the item you wish to change.



4 Move the joystick left or right to change the value of the item.

5 Press the Menu button to exit.

Note

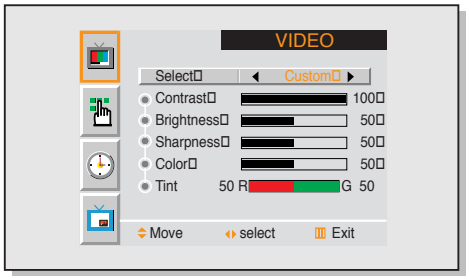
- In the PC mode, you can't adjust the "sharpness", "color" and "tint".

Using Automatic Picture Settings

Your PDP has automatic picture settings that allow you to adjust the video display easily.

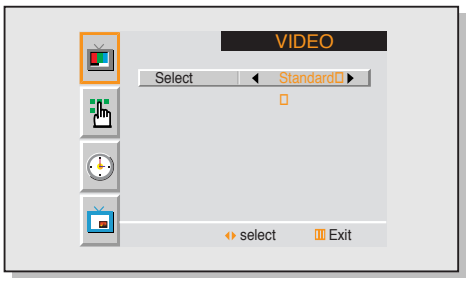
1 Press the Menu button, then press the joystick to enter.

Quick way to access the picture setting: Just press "P.Mode" on the remote control.



2 Move the joystick left or right to select the "Custom", "Standard", "Dynamic", "Movie", or "Mild" picture setting.

- You can select "High," "Middle," "Low," or "Custom" in PC mode.



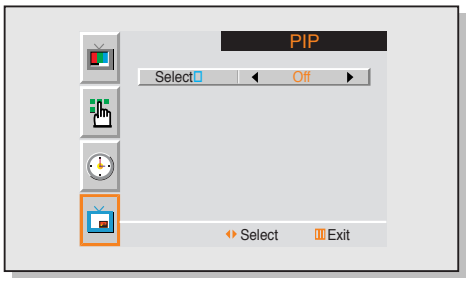
3 Press the Menu button to exit.

Viewing the Picture-in-Picture

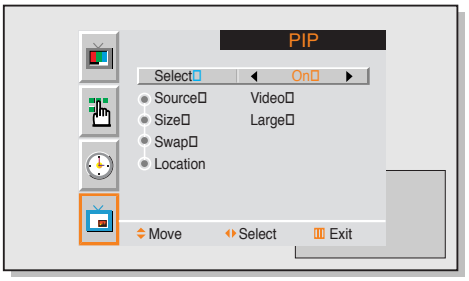
Selecting the PIP Screen

1 Press the Menu button. Move the joystick up or down to select the “PIP”, then press the joystick to enter.

Quick way to access the PIP: Just press “PIP” on the remote control.



2 Move the joystick left or right to select the “On”.
The PIP image will appear in the corner of the screen.



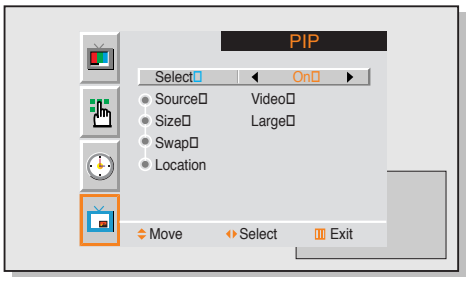
3 Press the Menu button to exit.

Selecting an External Signal

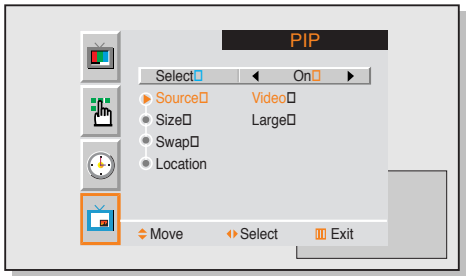
You can use PIP to view a signal from an external source, such as a VCR.

1 Press the Menu button. Move the joystick up or down to select the "PIP", then press the joystick to enter.

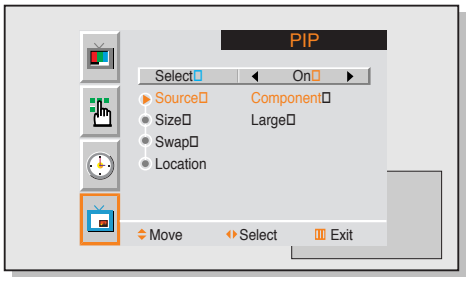
Quick way to access the PIP source: Just press "Source" on the remote control.



2 Move the joystick up or down to select the "Source".



3 Move the joystick left or right to select an external signal. You can choose "Video", "S-Video" or "Component".
The signal from these inputs will not appear if you have not connected any equipment to the PDP's input jacks.

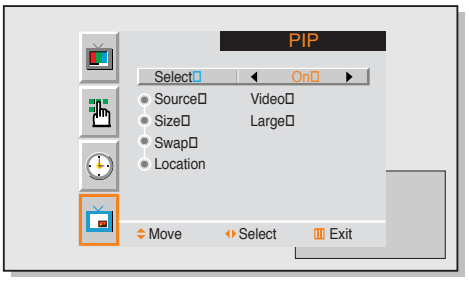


4 Press the Menu button to exit.

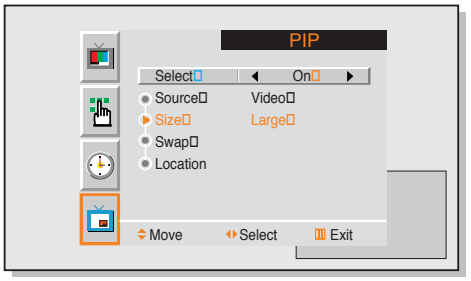
Changing the Size of the PIP Image

1 Press the Menu button. Move the joystick up or down to select the "PIP", then press the joystick to enter.

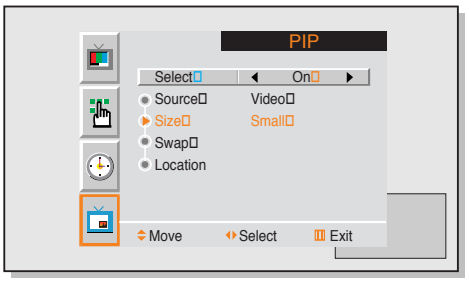
Quick way to access the PIP size: Just press "Size" on the remote control.



2 Move the joystick up or down to select the "Size".



3 Move the joystick left or right to change the size of the PIP image. You can choose between a small size, and a large size.

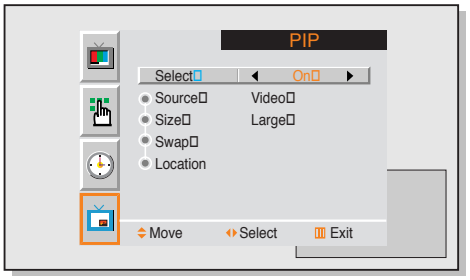


4 Press the Menu button to exit.

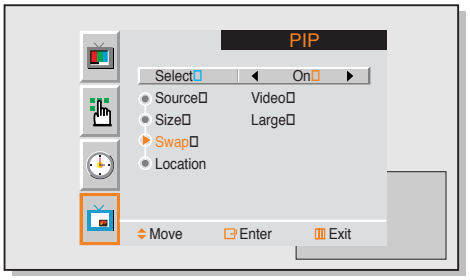
Swapping the Contents of the PIP Image and Main Image

1 Press the Menu button. Move the joystick up or down to select the "PIP", then press the joystick to enter.

Quick way to access the Swapping: Just press "Swap" on the remote control.



2 Move the joystick up or down to select the "Swap".



3 Press the joystick. The channel in the PIP image will appear in the main image.

4 Press the Menu button to exit.

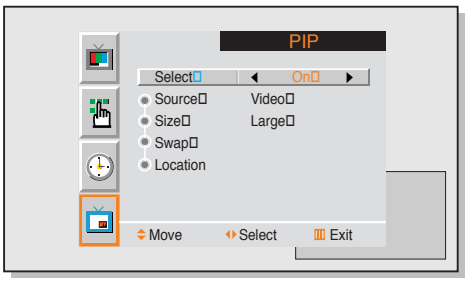
Note

- The Swapping doesn't operate in the PC or DTV mode.
- When the main picture is in Video, S-Video or DVD, neither PC or DTV doesn't operate as PIP.

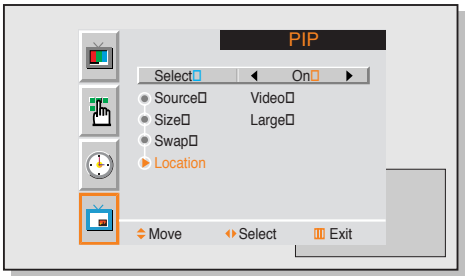
Changing the Location of the PIP Image

1 Press the Menu button. Move the joystick up or down to select the “PIP”, then press the joystick to enter.

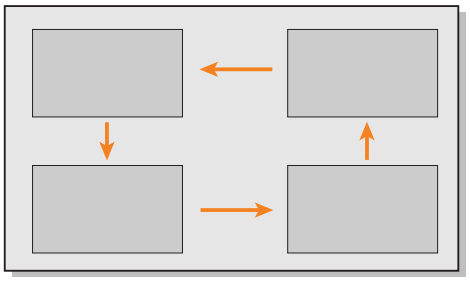
Quick way to access the PIP location: Just press “Locate” on the remote control.



2 Move the joystick up or down to select the “Locate”.



3 Move the joystick left or right to move the PIP image from corner to corner on the screen.



4 Press the Menu button to exit.

Changing the Screen Size

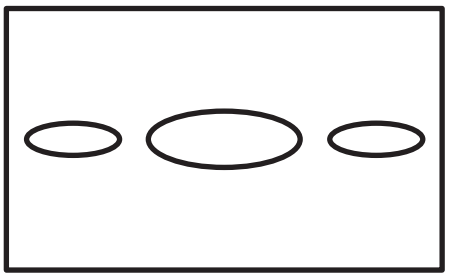
When you press the Aspect button on the remote control, the PDP's screen mode choices appear in sequence. The screen displays in this order: Wide, Panorama, Zoom1, Zoom2, Stretch, 4:3.

Note

- If you watch a still image or the 4:3 mode for a long time, image may be burned onto the screen, view the monitor in wide mode or panorama mode as possible.

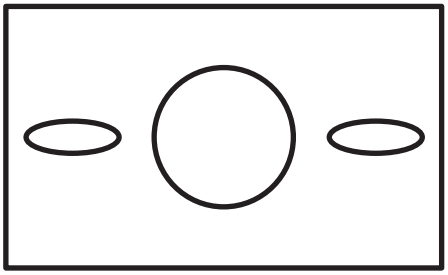
Wide

Sets the picture to 16:9 wide mode.



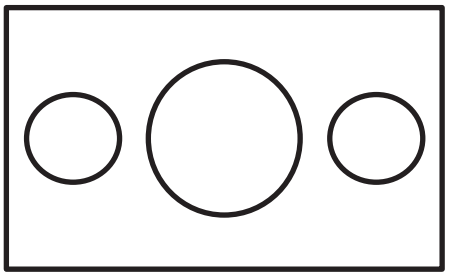
Panorama

Use this mode for the wide aspect ratio of a panoramic picture.



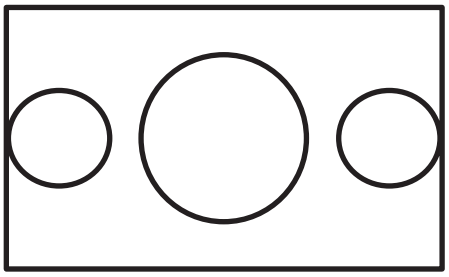
Zoom1

Magnify the size of the picture vertically on screen.



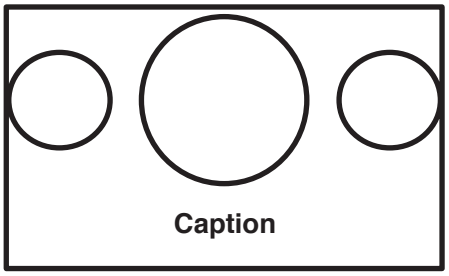
Zoom2

Magnify the size of the picture more than Zoom1.



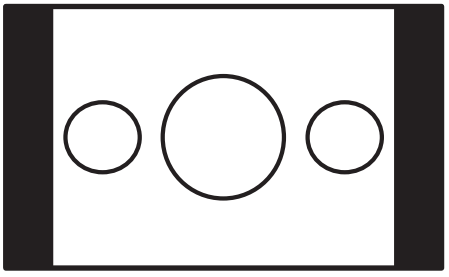
Stretch

Moves the Zoom2 picture up a little to fully show the bottom. Use this picture size. If you want to view Zoom2 picture along with captions when watching movies.



4:3

Sets the picture to 4:3 normal mode. This is a standard PDP screen size.



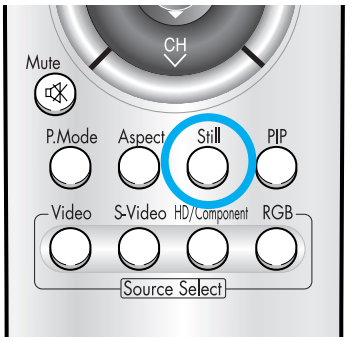
Note

- In VIDEO, S-VIDEO, DVD mode, all screen modes can be selected. (Wide → Panorama → Zoom1 → Zoom2 → Stretch → 4:3 → Wide...)
- In DTV mode (Wide → Zoom1 → Zoom2 → Wide...)
- In PC mode (Fill All → Normal → Fill All...)

Freezing the Picture

Still

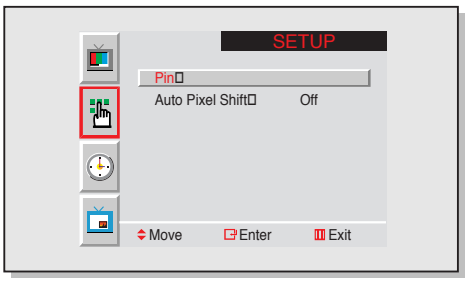
Press the Still button on the remote control to freeze a moving picture into a still one. Press again to cancel.



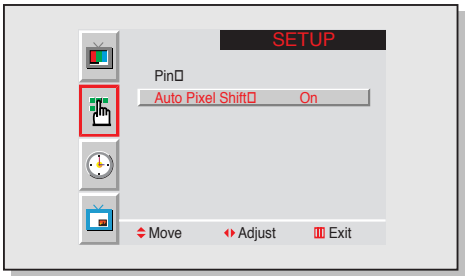
Auto Pixel Shift

To prevent image retention, the screen automatically moves by one pixel.

1 Press the Menu button. Move the joystick up or down to select "SETUP", then press the joystick to enter.



2 Move the joystick up or down to select "Auto Pixel Shift".
Move the joystick left or right to select "On".



3 Press the Menu button to exit.

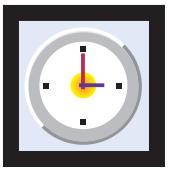
Note

- Auto pixel shift doesn't operate in the PC mode.

SAMSUNG

PLASMA DISPLAY PANEL

Time Setting



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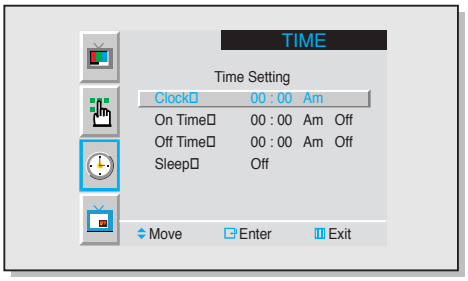
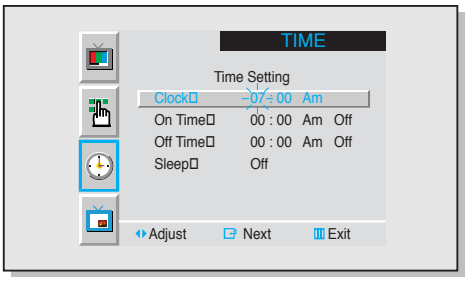
Setting the Clock

This PDP has a built-in clock that will appear on screen when you press the Clock Display button on the remote control. Setting this clock also allows you to use it to automatically turn the PIP On or Off.

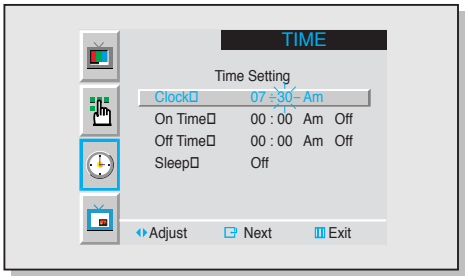
1 Press the Menu button. Move the joystick up or down to select the "TIME", then press the joystick to enter.



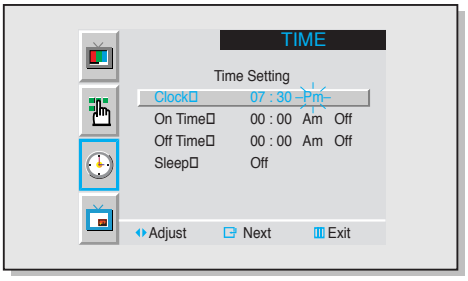
2 Press the joystick to enter, then Move the joystick left or right to select the correct hour.



3 Press the joystick to enter, then Move the joystick left or right to select the correct minute.



4 Press the joystick to enter, then Move the joystick left or right to select "Am" or "Pm".



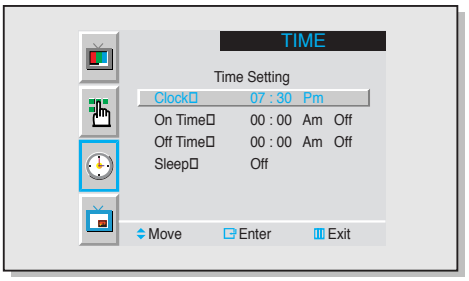
5 Press the Menu button to exit.

Setting the Sleep Timer

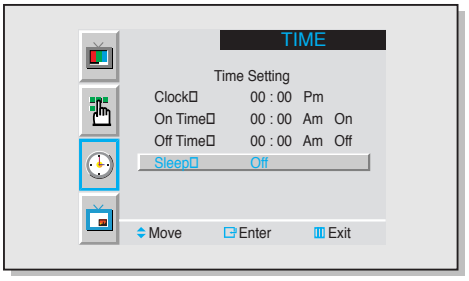
You can set your PDP to automatically turn off after a preset interval.

1 Press the Menu button. Move the joystick up or down to select “TIME”, then press the joystick to enter.

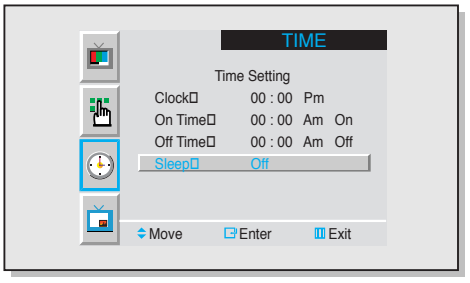
Quick way to access the Sleep timer: Just press “Sleep” on the remote control.



2 Move the joystick up or down to select the “Sleep”, then press the joystick to enter.



3 Move the joystick left or right to select the time interval for the PDP to stay on. The interval ranges from 10 to 360 minutes.



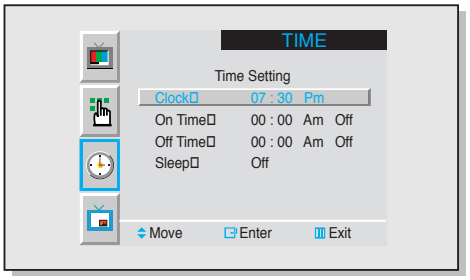
4 Press the Menu button to exit.

Setting the Timers

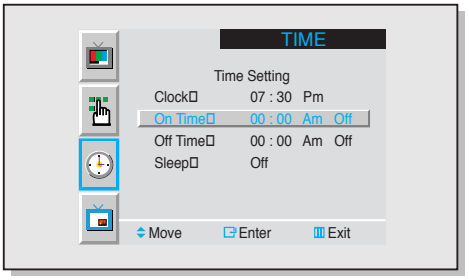
This PDP can be set to turn on or off automatically at specific times that you choose. Before using the timers, you must set the PDP's clock, as described previously.

Setting the On/Off Timer

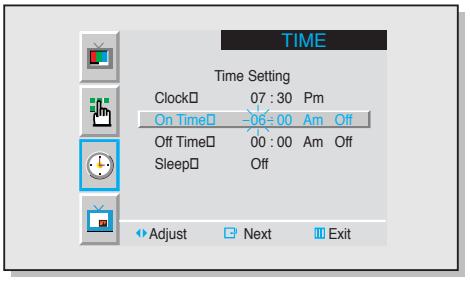
1 Press the Menu button. Move the joystick up or down to select the "TIME", then press the joystick to enter.



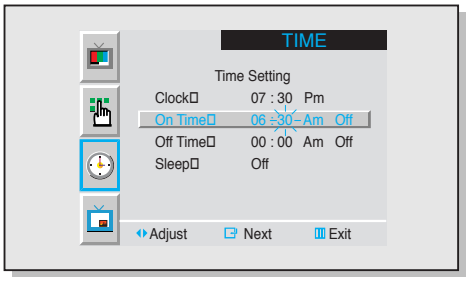
2 Move the joystick up or down to select the "On time", then press the joystick to enter.



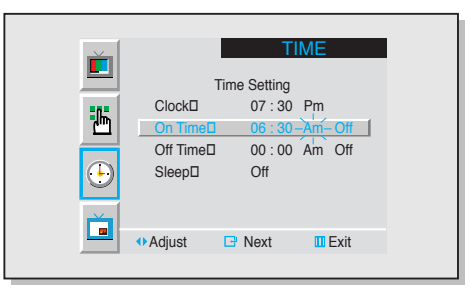
3 Move the joystick left or right to select the correct hour, then press the joystick to enter.



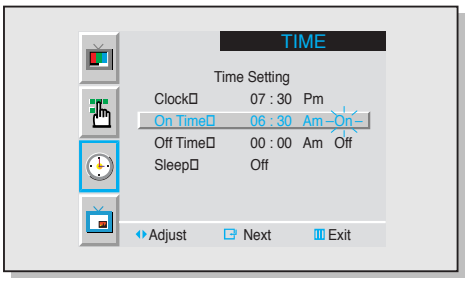
4 Move the joystick left or right to select the correct minutes, then press the joystick to enter.



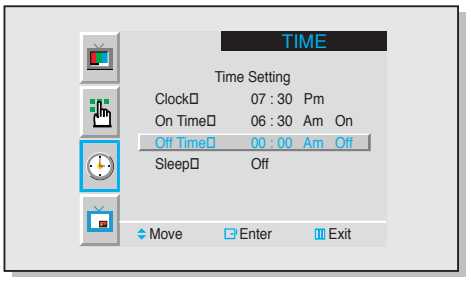
5 Move the joystick left or right to select "Am" or "Pm", then press the joystick to enter.



6 Move the joystick left or right to select “On”, then press the joystick to enter.



7 If you want to set the Off Time, move the joystick down to select the “Off Time”.
Set the “Off Time” just as you set the “On Time”.



8 Press the Menu button to exit.

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Function Description +α

Using RS-232C cable (optional) 58
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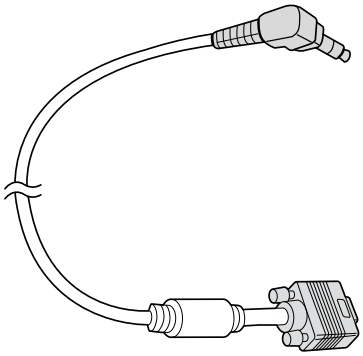
+α Using RS 232C cable (optional)

A RS 232C cable is not included with the monitor. (The separately sold RS 232C cable is required) As shown on the screen, PDP Remote Controller is used to control the PDP, Controls are made the PDP Remote Control pad shown in diagram. Program disk is provided with your PDP monitor.

Supported Operating Systems

- Window 98 (including Second Edition)
- Window Me
- Window NT 4.0
- Window 2000



Installation Procedures

1 Connect RS-232C cable (optional) to the PC and monitor's RS 232C input port.

2 Start your computer. If you have any application programs running, close them now.

3 Insert the floppy in the floppy drive. Run the PDP.EXE.

PDP Remote Controller menu

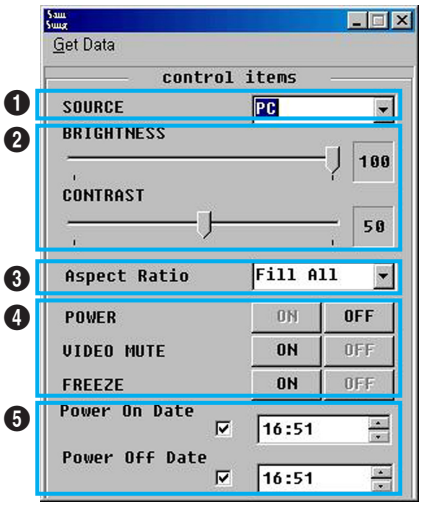
❶ To select the input source, click the drop-down box.

❷ To change the brightness and contrast, drag the control bar.

❸ To select the screen mode, click the drop-down box.

❹ To control these functions, click the buttons.
(The video mute is screen off)

❺ To active the Power ON/OFF Dates, adjust the time and check the box.



Note

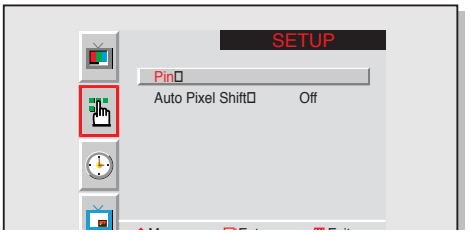
- The remote control doesn't operate when connecting your PDP monitor to RS-232C.

+α Setting the Pin

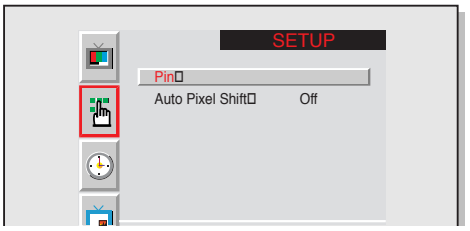
In case various PDP sets are displayed using a multi cube, use this function to stop the remote control operating by turning the PIN function ON for a specific set.

➢ Do NOT forget the PIN number. If you forgot the PIN number, disconnect the power cord. And the mode will automatically turn PIN OFF.

1 Press the Menu button. Move the joystick up or down to select the "SETUP", then press the joystick to enter.

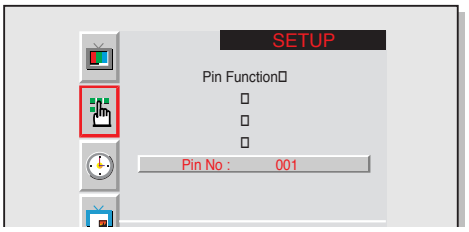


2 Move the joystick up or down to select the "Pin", then press the joystick to enter.



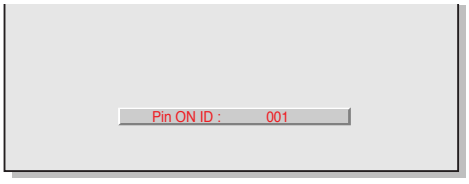
3 Move the joystick left or right to enter pin number.

4 Press the Menu button to exit.



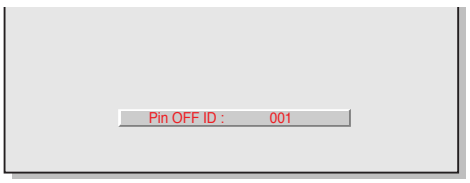
Operating pins (when Pin No. is set to 001)

1. Press the Mute button.
2. Using the Number buttons, enter the pin number.
3. A remote control can't run the PDP set.



Canceling pins (when Pin No. is set to 001)

1. Press the Mute button.
2. Using the Number buttons, enter the pin number.
3. A remote control can run the PDP set.



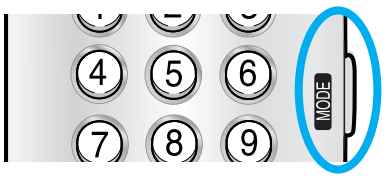
+α Setting up Your Remote Control

This PDP's remote control can operate almost any VCR, cable box, or DVD. After it has been set up properly, your remote control can operate in four different modes: VCR, Cable, or DVD. Pressing the corresponding button on the remote control allows you to switch between these modes, and control whichever piece of equipment you choose.

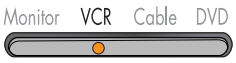
Note:The remote control might not be compatible with DVD Player, VCR, Cable box and others manufactured by another company.

Setting Up the Remote to Operate Your VCR, Cable box, or DVD players

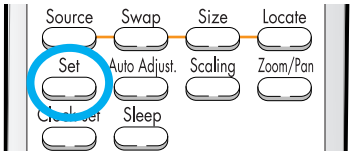
1 Turn off your VCR. (or Cable box, DVD players.)



2 Press the MODE button and make sure that the VCR (or Cable box, DVD) LED is illuminated.

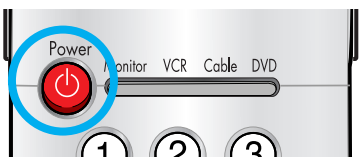


3 Press the Set button on your PDP's remote control.



4 Using the number buttons on your remote control, enter three digits of the VCR (or Cable box, DVD) code listed on page 59 of this manual for your brand of VCR (or Cable box, DVD players). Make sure you enter three digits of the code, even if the first digit is a "0". (If more than one code is listed, try the first one.)

5 Press the Power button on the remote control. Your VCR (or Cable box, DVD players) should turn on if your remote is set up correctly. If your VCR (or Cable box, DVD players) does not turn on after set up, repeat steps 2, 3, and 4, but try one of the other codes listed for your brand of VCR (or Cable box, DVD players). If no other codes are listed, try each code, 000 through 089 (or Cable box: 0000 through 077, DVD players: 000 through 008).



Notes

- When your remote control is in “VCR” mode, the VCR control buttons (Stop, REW, Play/Pause, FF) still operate your VCR.
- When your remote control is in “Cable box” or “DVD” mode, the VCR control buttons (Stop, REW, Play/Pause, FF) still operate your VCR.

Remote Control Codes

VCR Codes

Admiral 006, 079	KLH 073	RCA 000, 005, 007, 008, 028, 035, 037, 054, 069
Aiwa 015	LG 009, 014, 046, 060	Samsung 007, 013, 022, 032, 042, 077
Akai 017, 022, 023, 027, 030	Lloyd 015	Sansui 016
Audio Dynamics 014, 016	Logik 031	Sanyo 002, 012
Bell & Howell 002	LXI 015	Scott 013, 041, 049, 068
Broksonic 010	Magnavox 008, 029, 053, 056	Sears 002, 005, 009, 012, 018, 019, 035, 043, 048
Candle 007, 009, 013, 045, 046, 052	Marantz 002, 008, 014, 016, 029, 030, 046, 061	Sharp 006, 027, 039, 045
Cannon 008, 053	Marta 009	Shintom 017, 026, 031, 055
Citizen 007, 009, 013, 045, 046, 052	MEI 008	Signature 015
Colortyme 014	Memorex 008, 009, 012, 015	Sony 017, 026, 038
Craig 007, 012	MGA 027	Sylvania 008, 015, 029, 053, 056
Curtis-Mathes 000, 007, 008, 014, 015, 046, 053, 064, 067	Midland 032	Symphonic 015
Daewoo 013, 045, 076	Minota 005, 035	Tandy 002, 015
DBX 014, 016	Mitsubishi 005, 027, 035, 040	Tashiko 009
Dimensia 000	Montgomery ward 006	Tatung 030
Dynatech 015	MTC 007, 015	Teac 015, 030, 069
Electrohome 027	Multitech 007, 015, 031, 032	Technics 008
Emerson 008, 009, 010, 013, 015, 020, 023, 027, 034, 041, 042, 047, 049, 057, 062, 065, 067, 068, 070	NEC 002, 014, 016, 030, 046, 061, 064	Ternika 008, 009, 015, 021
Fisher 002, 012, 018, 019, 043, 048, 058	Optimus 006	TMK 067
Funai 015	Panasonic 008, 053, 075, 077	Toshiba 005, 013, 019, 048, 049
GE 000, 007, 008, 032, 053	Pentax 005, 035	Totevision 007, 009
Go Video 007	Pentex Reserch+ 046	Unitech 007
Harman Kardon 014	Philco 008, 029, 053, 056	Vector Research 014, 016
Hitachi 005, 015, 035, 036	Philips 008, 029	Victor 016
Instant Replay 008	Pioneer 005, 016, 033, 050	Video Concepts 014, 016
JC Penney 002, 005, 007, 008, 014, 016, 030, 035, 051, 053	Portland 044, 045, 052	Videosonic 007
JCL 008, 002, 014, 016, 030, 046	ProScan 000	Wards 005, 006, 007, 008, 009, 012, 013, 015, 027, 031, 035
JVC 002, 014, 088, 089	Quartz 002	Yamaha 002, 014, 016, 030, 046
Kenwood 002, 014, 016, 030, 046	Quasar 008, 053	Zenith 011, 017, 026, 079
	Radio Shack/Realist 002, 006, 008, 009, 012, 015, 019, 027, 045, 053	

Cable Box Codes

Anvision 007, 008	NSC 009	Signature 046
Cablestar 007, 008	Oak 016, 038	Sprucer 027
Eagle 007, 008	Osk Sigma 016	Starcom 046
Eastern Int. 002	Panasonic 003, 027, 039, 061, 073, 074	Stargate 2000 058
General Instrument 046	Philips 007, 008, 019, 021, 026, 028, 029, 032, 033, 040, 041	Sylvania 011, 059
GI 004, 005, 015, 023, 024, 025, 030, 036, 067, 068, 069	Pioneer 018, 020, 044, 074, 077	Texscan 011, 059
Hamlin 003, 012, 013, 034, 048	Randtek 007, 008	Tocom 017, 021, 049, 050, 055, 073
Hitachi 037, 043, 046	RCA 000, 027, 066	Unika 031, 032, 041
Jerroid 004, 005, 015, 023, 024, 025, 030, 036, 046, 062, 065	Regal 003, 012, 013	Universal 051, 052
Macom 037, 043	Regency 002, 033	Viewster 007, 008, 019, 021, 026, 028, 029, 032, 033, 040, 041
Magnavox 007, 008, 019, 021, 026, 028, 029, 032, 033, 040, 041	SA 070, 071, 072	Warner Amex 044
	Samsung 044, 003, 022, 063, 064	Zenith 014, 042, 057, 061, 075, 076

DVD Codes

Philips	001
Proscan	002
RCA	002
Toshiba	003
Panasonic	004
Sony	008
Samsung	000

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Appendix

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Troubleshooting

Before you call a service technician, please scan this list of problems and possible solutions. It may save you time and money.

Problem	Possible Solution
Poor picture	Check all wire connections.
The power indicator is amber blinking	The monitor is using its power management system. Check the power management utility on your computer.
Your Remote control does not operate the monitor	Press the “Mode” button to put your remote control in the “Monitor” mode.
The monitor won’t turn on	Make sure the wall outlet is working.
There is no screen image	Check to see that both the monitor and the source are plugged in and turned on.
The image is too light or too dark	Adjust the Brightness or Contrast settings.
The image is too large or too small	Adjust the Size settings.

Care and Maintenance

With proper care, your PDP will give you many years of service. Please follow these guidelines to get the maximum performance from your PDP.

Identifying Problems

- Do not put the PDP near extremely hot, cold, humid or dusty places.
- Do not put the PDP near appliances that create magnetic fields.
- Keep the ventilation openings clear.
- Do not place the PDP on a rough and slanted surface, such as cloth or paper.

Liquids

- Do not handle liquids near or on the PDP.

Cabinet

- Never open the cabinet or touch the parts inside.
- Wipe your PDP with a clean, dry cloth.
- Never use water, cleaning fluids, wax, or chemicals.
- Do not put heavy objects on top of the cabinet.

Temperature

- If your PDP is suddenly moved from a cold to a warm place, unplug the power cord for at least two hours so that moisture that may have formed inside the unit can dry completely.

Specifications

This is a Class A system so that it can be used in industrial areas.
(Note: Class A systems are for business use.)

Model		SPK4215M
Dimensions	Display	1108 (W) X 84 (D) X 664.5 (H) mm ; 43.62 (W) X 3.31 (D) X 26.14 (H) inches
	Remote Control	54 (W) X 31.5 (D) X 220 (H) mm ; 2.13 (W) X 1.24 (D) X 8.66 (H) inches
Weight	Display	36.8kg ; 81.13lbs
	Remote Control	150g (including batteries) ; 0.33lbs
Voltage		110-230V~, 50/60 Hz, 4-2A
Power Consumption		350 Watts
Number of Pixels		852(H) x 480(V)
Screen Size		106cm ; 42 inches

Memo

AA68-01689A(ENG)